Aerial Photography for Maine

The Maine GeoLibrary recommends a $2.75 million bonds initiative to acquire new statewide aerial photography. The bond funds will seed a 2010 program and attract local and federal dollars.

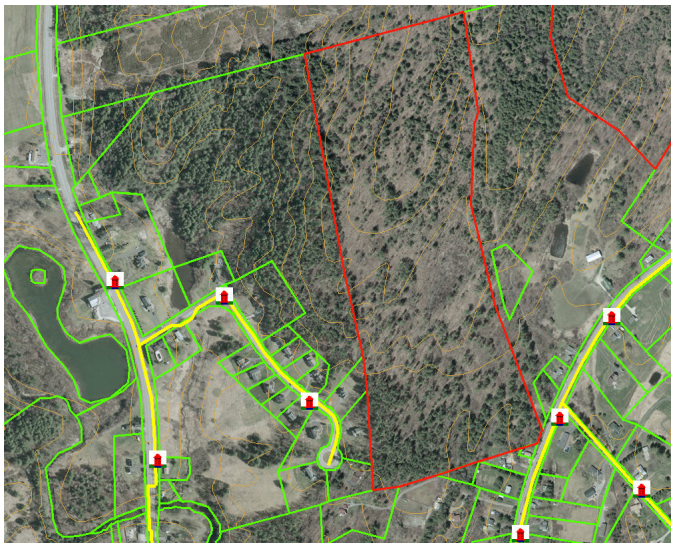

Figure 1. Detailed digital aerial photo overlaid with the location of property lines, land elevation contours, fire hydrants and water mains in a GIS.

Aerial photography, in the form of **digital orthoimagery**, is the foundation for state, local and private programs in Maine. It is an essential product that is being developed by organizations across Maine including the state's larger cities and towns. However, many small towns cannot afford orthoimagery at all. This leads to haves and have nots, higher overall costs, varying quality, duplication of effort, and a patchwork of products. Large area contracting methods will keep the cost to taxpayers as low as possible, improve the availability of standardized, high-quality products, permit more frequent updates, and ensure all Mainers have access to current orthoimagery for their community.

With this in mind, Maine produced high resolution digital orthoimagery from 2003-2005 aerial photography. State bond funds were matched by federal dollars to pay for the project. Testimonials from organizations around the state which have used that 2003-2005 orthoimagery can be seen at this link - http://www.maine.gov/geolib/orthosurveyresults.htm.

The orthoimagery is aging and much has changed over the Maine landscape. It is time to acquire new aerial photography, produce digital orthoimagery and make plans for future updates. The Maine GeoLibrary Strategic Plan, *developed with the input of stakeholders across the state*, identifies updated digital orthoimagery as a statewide priority. The following is a partial list of the uses identified by stakeholders:

- Tax Parcel Mapping
- Transportation Management, Operations & Planning
- Economic Development
- Utilities Management, Operations & Planning
- Land Planning and Zoning
- Drainage Planning & Management
- Code & Permit Enforcement
- Agriculture
- Insurance
- Surveying & Mapping
- Environmental Management, Planning & Regulation
- Education
- Natural Resource Inventories and Assessments
- Homeland Security & Emergency Management
- Public Safety Planning, Response & Mitigation

The economy of scale provides a very compelling case for producing the data on a statewide basis, rather than town-by-town or agency-by-agency. The cost for acquiring and processing the 2003 – 2005 orthoimagery was $3.3 million and covered 56% of the state or about $160/square mile. Several communities in southern Maine recently acquired similar orthoimagery products on their own and the average cost was approximately $500/square mile.

There is a common misconception that the State's efforts to upgrade its orthoimagery are redundant, since third party providers are already making this imagery available for free. This is not true. For states like Maine, the market does not compel companies to develop the scope of geographic information that the Maine public will need. Internet resources such as Google Earth or Microsoft's Virtual Earth acquire the information from the State of Maine. Without an orthoimagery program funded by the State of Maine, publicly available orthoimagery for the entire state, whether through private or government sources, would become outdated, and in many regions would remain at unacceptably low quality levels.

Failure to promote high quality orthoimagery in Maine will put the State at a disadvantage in the economic marketplace. Shouldn't Maine continue to fund a program to improve its imagery for northern Maine and other underserved areas, to update the information on a statewide basis, and to help the state be competitive? Why shouldn't everyone benefit from sharper imagery with far greater utility?

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